

- Chapter 1 Acetylene
- Chapter 2 Air
- Chapter 3 Allene
- Chapter 4 Ammonia
- Chapter 5 Argon
- Chapter 6 Arsenic Pentafluoride
- Chapter 7 Arsine
- Chapter 8 Boron Trichloride
- Chapter 9 Boron Trifluoride
- Chapter 10 Bromine Pentaflouride
- Chapter 11 Bromine Trifluoride
- Chapter 12 Bromotrifluoroethylene
- Chapter 13 Bromotrifluoromethane
- Chapter 14 1,3-Butadiene
- Chapter 15 Butane
- Chapter 16 1-Butene
- Chapter 17 cis-2 -Butene
- Chapter 18 trans-2-Butene
- Chapter 19 Butyl Mercaptan
- Chapter 20 sec-Butyl Mercapatan
- Chapter 21 tert-Butyl Mercapatan
- Chapter 22 Carbon Dioxide
- Chapter 23 Carbon Disulfide
- Chapter 24 Carbon Monoxide
- Chapter 25 Carbon Tetrachloride
- Chapter 26 Carbon Tetrafluoride
- Chapter 27 Carbonyl Fluoride
- Chapter 28 Carbonyl Sulfide
- Chapter 29 Chlorine
- Chapter 30 Chlorine Trifluoride
- Chapter 31 2-Chloro-1,3-Butadiene
- Chapter 32 Chlorodifluoromethane
- Chapter 33 Chloropentafluoroethane
- Chapter 34 Chlorotrifluoroethylene
- Chapter 35 Chlorotrifluoromethane
- Chapter 36 Cyanogen
- Chapter 37 Cyanogen Chloride
- Chapter 38 Cyclobutane
- Chapter 39 Cyclohexane
- Chapter 40 Cyclopentane
- Chapter 41 Cyclopropane
- Chapter 42 Decane
- Chapter 43 Deuterium
- Chapter 44 Diborane
- Chapter 45 Dibromodifluoromethane
- Chapter 46 1,2-Dibromotetrafluoroethane

- Chapter 47 Dichlorodifluoromethane
- Chapter 48 Dichlorofluoromethane
- Chapter 49 Dichlorosilane
- Chapter 50 1,2-Dichlorotetrafluoroethane
- Chapter 51 Diethyl Disulfide
- Chapter 52 Diethyl Sulfide
- Chapter 53 1,1-Difluoro-1-Chloroethane
- Chapter 54 1,1-Difluoroethane
- Chapter 55 1,1-Difluoroethylene
- Chapter 56 Difluoromethane
- Chapter 57 Dimethylamine
- Chapter 58 Dimethyl Disulfide
- Chapter 59 Dimethyl Ether
- Chapter 60 2,2-Dimethylpropane
- Chapter 61 Dimethyl Sulfide
- Chapter 62 Disilane
- Chapter 63 Ethane
- Chapter 64 Ethylacetylene
- Chapter 65 Ethylamine
- Chapter 66 Ethyl Chloride
- Chapter 67 Ethylene
- Chapter 68 Ethylene Oxide
- Chapter 69 Ehtyl Mercaptan
- Chapter 70 Fluoride
- Chapter 71 Germane
- Chapter 72 Germanium Tetrafluoride
- Chapter 73 Helium
- Chapter 74 Heptane
- Chapter 75 Hexafluoroacetone
- Chapter 76 Hexafluoroethane
- Chapter 77 Hexafluoropropylene
- Chapter 78 Hexane
- Chapter 79 Hydrogen
- Chapter 80 Hydrogen Bromide
- Chapter 81 Hydrogen Chloride
- Chapter 82 Hydrogen Cyanide
- Chapter 83 Hydrogen Fluoride
- Chapter 84 Hydrogen Iodine
- Chapter 85 Hydrogen Selenide
- Chapter 86 Hydrogen Sulfide
- Chapter 87 Iodine Pentafluoride
- Chapter 88 Isobutane
- Chapter 89 Isobutylene
- Chapter 90 Isobutyl Mercaptan
- Chapter 91 Isopropyl Mercaptan
- Chapter 92 Krypton

- Chapter 93 Mapp Gas
- Chapter 94 Methane
- Chapter 95 Methylacetylene
- Chapter 96 Methyl Bromide
- Chapter 97 3-Methyl-1-Butene
- Chapter 98 Methyl Chloride
- Chapter 99 Methyl Ethyl Ether
- Chapter 100 Methyl Ethyl Sulfide
- Chapter 101 Methyl Fluoride
- Chapter 102 Methyl Mercaptan
- Chapter 103 Methyl Vinyl Ether
- Chapter 104 Monomethylamine
- Chapter 105 Neon
- Chapter 106 Nickel Carbonyl
- Chapter 107 Nitric Oxide
- Chapter 108 Nitrogen. Chapter 109: Nitrogen Dioxide
- Chapter 110 Nitrogen Trifluoride
- Chapter 111 Nitrogen Trioxide. Chapter 112: Nitrosyl Chloride
- Chapter 113 Nitrous Oxide
- Chapter 114 Octane
- Chapter 115 Octafluorocyclobutane
- Chapter 116 Octafluorocyclopentene
- Chapter 117 Oxygen
- Chapter 118 Oxygen Difluoride
- Chapter 119 Ozone
- Chapter 120 Pentafluoroethane
- Chapter 121 Pentane
- Chapter 122 Perchloryl Fluoride
- Chapter 123 Perfluorobutane
- Chapter 124 Perfluoro-2-Butene
- Chapter 125 Perfluoropropane
- Chapter 126 Phosgene
- Chapter 127 Phosphine
- Chapter 128 Phosphorous Pentafluoride
- Chapter 129 Phosphorous Trifluoride
- Chapter 130 Propane
- Chapter 131 Propylene
- Chapter 132 Propylene Oxide
- Chapter 133 Propyl Mercaptan
- Chapter 134 Silane
- Chapter 135 Silicon Tetrachloride
- Chapter 136 Silicon Tetrafluoride
- Chapter 137 Sulfur Dioxide
- Chapter 138 Sulfur Hexafluoride
- Chapter 139 Sulfur Tetrafluoride
- Chapter 140 Sulfuryl Fluoride

- Chapter 141 Tetrachloroethlyene
- Chapter 142 Tetrafluoroethylene
- Chapter 143 Tetrafluorohydrazine
- Chapter 144 Tetrahydrothiophene
- Chapter 145 Thiophene
- Chapter 146 Trichlorofluoromethane
- Chapter 147 Trichlorosilane
- Chapter 148 1,1,2-Trichloro-1,2,2-Trifluoroethane
- Chapter 149 Trifluoromethane
- Chapter 150 Trimethylamine
- Chapter 151 Trimethyl Silane
- Chapter 152 Tungsten Hexafluoride
- Chapter 153 Vinyl Acetylene
- Chapter 154 Vinyl Bromide
- Chapter 155 Vinyl Chloride
- Chapter 156 Vinyl Fluoride
- Chapter 157 Xenon
- References
- Appendixes: 1 Critical Properties and Acentric Factor
- 2 Heat Capacity of Gas
- 3 Heat Capacity of Liquid
- 4 Heat Capacity of Solid
- 5 Vapor Pressure
- 6 Density of Liquid
- 7 Coefficient of Thermal Expansion
- 8 Enthalpy of Vaporization
- 9 Enthalpy of Fusion
- 10 Surface Tension
- 11 Enthalpy of Combustion
- 12 Enthalpy of Formation of Gas
- 13 Gibbs Energy of Formation of Gas
- 14 Entropy and Entropy of Formation of Gas
- 15 Solubility in Water and Octanol-Water Partition Coefficient
- 16 Henry's Law Constant for Compound in Water
- 17 Solubility Parameter, Volume, and Van Der Waals Area and Volume
- 18 Refractive Index, Dipole Moment, and Radius of Gyration
- 19 Explosion Limits in Air, Flash Point, and Autoignition Temperature
- 20 Exposure Limits for Maintaining Health
- 21 Viscosity of Gas
- 22 Viscosity of Liquid
- 23 Thermal Conductivity of Gas
- 24 Thermal Conductivity of Liquid
- 25 Solubility of Gases in Water
- 26 Henry's Law Constant for Gases in Water
- 27 Safe Handling of Compressed Gases in the Laboratory and Plant
- 28 Disposal of Leaking Cyclinders

- 29 Conversion Table
- 30 Compound List by Chemical Formula
- 31 Compound List by Cas Registry Number
- 32 Compound List by Name and Synonym